

REMARKS

Claims 5-10 and 12 were examined in the final Office Action mailed April 13, 2006 (the Applicants note that claim 11 was canceled in the Amendment filed February 18, 2006).

Claims 5-9 and 12 stand rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,212,023 to Diethelm, while claim 10 continues to stand objected to as depending from a rejected based claim, but allowable if rewritten into independent form.

In response to the Examiner's helpful comments regarding the claiming of the present fuel cell arrangements, the Applicants are respectfully requesting entry of amendments to more clearly recite the fuel cell plate and separator arrangements. Entry of these amendments is requested based on the Applicants' belief that because the amendments merely rewrite the claims for improved clarity and to conform to U.S. practice, no additional search will be required.

As amended, claim 5 would recite:

5. (currently amended) A fuel cell comprising:

at least two individual cells with an electrolyte/electrode unit, said cells each having a cell face opposing an adjacent cell face of another of the at least two individual cells, said opposing faces disposed parallel to one another, wherein one of said opposing faces is an anode of one of the cells and the adjacent opposing face is a cathode of the opposing cell, and

at least one conducting end or intermediate plate extending substantially perpendicularly between said parallel opposing cell faces, each plate including:

at least two substantially identical or mirror-image partial elements paired together to form each plate,

air conducting channels or guiding areas arranged to direct a gaseous reactant directly along said anode and subsequently along said cathode, and

at least one section of a heat exchanger incorporated between the at least two partial elements and arranged to transfer heat from the gaseous medium on an anode side of the heat exchanger to the gaseous medium on a cathode side of the heat exchanger.

Diethelm: Diethelm discloses a fuel cell with the following elements:

- an electrochemically active structure 11 (anode on one side, cathode on the other);
- an inert plate member 31c below the anode/cathode structure 11;
- a second inert plate member 31a below the plate 31c (a plate 31a is also shown above the anode/cathode structure 11 in the next cell unit);
- fuel flow 12c across the gap between the anode side of structure 11 and plate 31c; and
- air flow 12b across the gap between the cathode side of structure 11 and plate 31a.

Diethelm Fig. 5.

Diethelm does not disclose at least the following features recited in the amended claims:

The Diethelm plates 31a, 31c extend substantially parallel to the anode side of structure 11; indeed, these plates have *no* structure perpendicular to anode 11 at all across the entire width of the fuel cell (and only small end walls to which the parallel plates attach being between the structure 11 plates).

Diethelm therefore does not disclose or suggest the claimed at least one plate between adjacent anode and cathode members “extending *substantially perpendicularly* between said parallel opposing cell faces.”

Diethelm also does not disclose the gaseous medium flow path recited in the claims: “air conducting channels or guiding areas arranged to direct a gaseous reactant directly along said anode and subsequently along said cathode.” The Diethelm structure shows air flowing between plates 31a and 31c; and then reversing direction to flow between plate 31a and the structure 11 cathode. This gas does not, however, ever flow along the structure 11 anode. Alternatively, the fuel gas feed into the space between plate 31c and the structure 11 anode only flows directly across and exits the fuel cell; it never flows along the structure 11 cathode.

For at least these reasons, Diethelm fails to disclose or suggest the invention recited in amended claims 5-10 and 12, and thus these claims would be allowable over this reference upon entry of the requested amendments.

CONCLUSION

In view of the foregoing, the Applicants respectfully submit that upon entry of the foregoing amendments, claims 5-10 and 12 would be in condition for allowance. Early and favorable consideration, and issuance of a Notice of Allowance for these claims is respectfully requested.

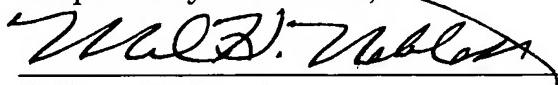
If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

App. Ser. No. 10/645,520
Atty. Dkt. No.: 080437.52615US
PATENT

If necessary to effect a timely response, this paper should be considered as
a petition for an Extension of Time sufficient to effect a timely response, and
please charge any deficiency in fees or credit any overpayments to Deposit
Account No. 05-1323 (Docket #080437.52615US).

June 20, 2006

Respectfully submitted,



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